



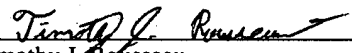
PATENT  
EMC-97-153CON1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Douglas LeCrone, et al	GROUP ART UNIT:	2114
U.S.S.N.:	10/642,912	CONFIRMATION NO.:	3185
FILING DATE:	August 18, 2003	EXAMINER:	Chu, Gabriel L.
		CUSTOMER NO.	24227
TITLE:	HOST SYSTEM FOR MASS STORAGE BUSINESS CONTINUANCE VOLUMES		

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 1,, 2006.

  
Timothy J. Rousseau

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.131

Sir:

Douglas E. LeCrone and Bruce A. Pocock declare:

1. That they are the co-inventors who on March 13, 1998 filed the above-reference U.S. Patent Application No. 10/642,912 entitled "Host System for Mass Storage Business Continuance Volumes" (the "Application").

Applicant: Douglas LeCrone, *et al.*  
U.S.S.N.: 10/642,912  
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2. That they conceived their invention in this country long prior to June 13, 1997, the filing date of U.S. Patent No. 6,216,211 entitled "Method and Apparatus for Accessing Logical Volumes" (the "McBrearty patent").

3. That at least as early as May 20, 1996, they began developing source code implementing the invention, as evidenced by the development history maintained in EMC Corporation's Interactive System Productivity Facility ("ISPF") directory listing, a screenshot of which is attached as Exhibit A. ISPF is a software library management tool for versioning, auditing, and promoting source code. It is maintained by EMC as an ordinary business record to provide developers with an interface to create software applications.

4. That Douglas E. LeCrone worked substantially continuously on the development of this source code, in original and subsequent versions, from May 20, 1996 through the filing date of the Application on March 13, 1998, spending at least 20 manhours per week.

5. That Bruce A. Pocock worked substantially continuously on the development of this source code from his start date at EMC in August, 1997 through the filing date of the Application on March 13, 1998, spending at least 20 manhours per week.

6. That they do not know and do not believe that their invention has been in public use more than one year before the date of their application; and that they have never abandoned the invention.

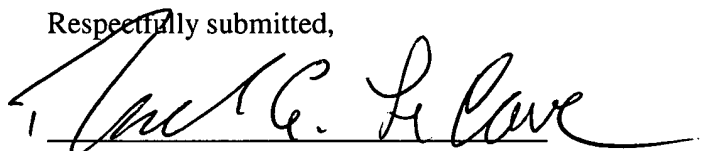
Applicant: Douglas LeCrone, *et al.*  
U.S.S.N.: 10/642,912  
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7. That all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

8/11/06  
Date

\_\_\_\_\_  
Date

Respectfully submitted,

  
Douglas E. LeCrone

\_\_\_\_\_  
Bruce A. Pocock

# EXHIBIT A

## Screenshot of Development History Maintained in EMC Corporation's ISPF Directory Listing

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*
* MOD : SMMF
* DESC : CODE TO DEBUG SYMMETRIX MULTI MIRROR FACILITY
*
* PARMs: H: TOTAL LEN OF PARMs
*         C: 1 TO 4 CHAR CUU OF PRIMARY DEVICE
*           OR 6 CHAR VOLSER OF PRIMARY DEVICE
*         C: ,
*         C: 1 TO 4 CHAR CUU OF SECONDARY(BACKUP) DEVICE
*           OR 6 CHAR VOLSER OF SECONDARY(BACKUP) DEVICE
*         C: ,
*         C: 1 CHAR ACTION CODE (Q/S/E/R/N/X/V)
*         C: ,
*         C: 1 CHAR WAIT OPTION (Y/N)
*         C: ,
*         C: 1 CHAR MESSAGE OPTION (Y/N)
*         C: ,
*         C: 1 CHAR FORCE OPTION (Y/N)
*         C: ,
*         C: 2 CHAR HEX VALUE FOR THE SPLIT FLAG
*
*
* REGS : R15-R14 WORK
*         R10 BASE EMCIOB
*
*         C: 2 CHAR HEX VALUE FOR THE SPLIT FLAG
*
*
* REGS : R15-R14 WORK
*         R10 BASE EMCIOB
*
*****
* HISTORY:
*  DATE WHO CHANGE_DESCRIPTION
* 04/15/96 DEL BASE CODE
* 05/02/96 DEL ADD THE X (RESTORE) OPTION
* 05/22/96 DEL ADD THE V (VERIFY) OPTION
* 06/07/96 DEL WHEN WAITING FOR THE ITRKS, EVERY 10 PASSES CALL THE
*              VERIFY ROUTINE
* 08/07/96 DEL CHANGE NAMES AROUND
* 09/03/96 DEL CHANGES TO THE QUERY OUTPUT, AND RESTORE OPTION Y
* 09/19/96 DEL USE DOIO
* 10/17/96 DEL ON A RESTORE IF I GET A REJECT CODE OF X'18' THEN
*              THERE ARE WRITE PENDINGs ON THE TARGET DEVICE SO
*              RETRY IN 5 SECONDS
* 10/19/96 DEL ADD ROUTCDE=11 TO SOME OF THE WTO'S
* 10/30/96 DEL ADD MSGCNSL OPTION
* 11/19/96 DEL CHANGE DOIO TO DOIOF AND NOT ALLOW ERP, I WILL DO
*              RE-TRYs MYSELF. ERP WAS PUTTING A 03 AFTER THE 27/3E
*              WHICH WAS CAUSING 0333 (EQU CHECKS) ON THE BCv
*              WHILE IT WAS ESTABLISHED.
* 02/27/97 PTN CHANGED CODE TO ACCEPT VOLSER NUMBERS FROM JCL
*              PARM INSTEAD OF REG CUU AND BCv CUU.
*              JCL PARM='&V2,&V,....'. V2 IS FOR REGUALR;
*              V, BCv.

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* 03/07/97 PTN CHANGED CODE TO ACCEPT EITHER CUU OR VOLSER          *
*                                     NUMBER FROM JCL PARM.  IF THE LEN OF V2 (REG)      *
*                                     PARAMETER IS LESS THAN 6 THEN PROCESS AS CUU;        *
*                                     LIKEWISE FOR &V (BCV).                          *
* 03/12/97 DEL FIX PTN CHANGES, ADD IODEV PARAMETER                  *
* 03/13/97 DEL ACCEPT RC OF 10H ON EST/RE-EST                          *
* 06/21/97 DEL RETRY SPLIT ON RC11                                     *
* 12/24/97 DAM ADD DISPLAY OF RC ON FAILURE                             *
* 01/08/98 DEL WAIT 1 SECOND AT END TO STOP MC PROBLEM OF COMING      *
*                                     TO QUICK AFTER ACTIONS IN THE SMMF* TESTS        *
* 01/16/98 DEL ADD DIFFERENTIAL SPLIT OPTION (T)                      *
* 03/05/98 DAM ADD DUMP OPTION TO ABEND 999                            *
*                                     SAVE R0 ON RETURN FROM DOIOF - SAVED IOBRC        *
*                                     LOAD IT INTO R3 BEFORE ABEND                    *
* 03/18/98 DAM ADD AMODE 31 - CRASHED W/ 31-BIT UCBS                  *
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* 09/02/98 DAM CHECK FOR 1735 AND SET RC=4                             *
* 10/21/98 DAM MADE DATA3E BUFFER BIGGER FOR FIND_BKUPDEV_ENTRY      *
*                                     ADJUSTED CP FOR LARGER BUFFER                    *
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* 03/19/99 DEL CHANGE DOIOF TO DOIO                                    *
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* 05/24/99 DAM FILE LEVEL FLAG                                         *
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* 05/26/99 DEL DO NOT CHECK #STCPARM                                    *
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* 06/18/99 DEL IF FILE LEVEL BIT ON MUST EXIT WITH RC8                *
* 01/19/00 DAM RETRY ESTABLISH AND RESTORE ON X'31' ERRORS            *
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**EMC-97-153CON1**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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<b>FILING DATE:</b>	August 18, 2003	<b>EXAMINER:</b>	Chu, Gabriel L.
		<b>CUSTOMER NO.</b>	<b>24227</b>
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Respectfully submitted,

\_\_\_\_\_  
Date

July 28, 2006  
Date

\_\_\_\_\_  
Douglas E. LeCrone

Bruce A. Pocock  
Bruce A. Pocock



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